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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722,430	11/28/2003	Hiroyuki Kojima	117720	7366
25944	7590	09/27/2005	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			CARIASO, ALAN B	
			ART UNIT	PAPER NUMBER
			2875	

DATE MAILED: 09/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/722,430

Applicant(s)

KOJIMA ET AL.

Examiner

Alan Cariaso

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-17 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 200311, 200409, 2005.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Specification***

2. The disclosure is objected to because of the following informalities:
3. Page 22, paragraph 0134, line 3, "cooing" is misspelled.
4. Page 23, paragraph 135, last three lines, the phrase "the tip 622T2 constituting a portion of the pointed shape is provided to face the flow of the cooling air" appears incorrect, because the tip is more accurately directed opposite or against the flow direction of cooling air.
5. Page 24, paragraph 0143, line 5, the drawing reference numeral "327" appears to be an incorrect number to describe "side fin portion", but instead should be --627--.

Appropriate correction is required.

### ***Claim Objections***

6. Claims 1 and 16 are objected to because of the following informalities:
7. Claim 1, line 6, "electro-optical" is missing its last object term --device--.
8. Claim 16, line 10, "cooing" is misspelled.
9. Claim 17, line 5, "protect" appears to be an incorrect word given the context.
10. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

11. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

12. Claims 3, 4 and 8-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

13. Claim 3, lines 2-3, the phrase "a pointed shape whose tip faces a direction of the flow of the cooling air" appears to be inaccurate, because it is apparent (in figs.7 or 15) that tip (622T2) is directed opposite the flow of cooling air (W1).

14. Claim 4, line 2, "the baffle plate" has no antecedent basis. It is noted that "a baffle plate" is first claimed in claim 2, but there is no link between claims 4 and 2.

15. Claim 8, line 4, "a second surface-area increasing portion" is indefinite as lacking a "first" thereof, to define this "second" thereof.

16. Claim 9 is indefinite for depending on indefinite claim 8.

17. Claim 10, line 2, "the second surface-area increasing portion" lacks antecedent basis. It is noted that claim 8 recites "a second surface-area increasing portion", but there is no link between claims 10 and 8.

18. Claim 10, line 4, "including fins ... *and/or* dimples" is indefinite as to claiming both fins and dimples, or in the alternative. It appears the fins and dimples are disclosed in the alternative, as shown by separate illustrations (figs.21,22).

19. Claims 11 and 12 are indefinite for depending on indefinite claim 10.

***Claim Rejections - 35 USC § 102***

20. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

21. Claims 1-5, 7-9 and 13-17 are rejected under 35 U.S.C. 102(b) as being anticipated by YUTAKA (JP 2002107698, English translation spec pp.1-8, drawing pp.1-6).

22. YUTAKA discloses an electro-optical apparatus comprising: an electro-optical device (liquid crystal panel 1, drawing 6) having an image display region (1a) on which projected light from a light source (11, drawing 1) is incident; a mounting case (frame 2 and gobo 6, drawing 6) in which the electro-optical device (1) is encased including a plate (6) disposed to face one surface (1a) of the electro-optical device (1) and a cover (2) to cover the electro-optical (1), the cover (2) having a portion (2c,2d) abutting on the plate (6), the mounting case (2,6) accommodating the electro-optical device (1) by holding at least a portion of a circumferential region (pg.5, paragraph 0051 or drawing 6(b)) positioned at the periphery of the image display region (1a) of the electro-optical device with at least one of the plate (6) and the cover (2), the cover (2) including a cover main body (2) and a cooling air introducing portion (2a) provided to extend from or along the cover main body (2); the cooling air introducing portion (2a) having a baffle plate (wing 5, drawings 5 and 7) defining a portion that prevents scattering of cooling air

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(page 6, spec pg.6, paragraph 0061); the cooling air introducing portion (2a) includes a slope portion (pg.7, top line "inclined plane 2a) having a pointed shape (drawing 10(a), spec pg.8, paragraph 0075) whose tip faces a direction associated with the flow of cooling air, and the cooling air scattering prevention portion (5) includes the slope portion (2a, drawing 7(c)); the baffle plate (wing 5) being provided so as to surround a surface (drawing 7(c)) constituting the slope portion (2a); the cover main body (2) having a window to expose the image display region (1a,1b) to the outside, and a surface (1a) of the image display region (1a) of the electro-optical device (1) exposed through the window (of frame 2) being continuous with the surface constituting the slope portion (2a, drawing 7); the cover (2) further having a cooling air discharging portion (2b) to discharge the cooling air which is blown from the cover main body (2) from the cover (pg.7, paragraph 0067), and the cooling air discharging portion (2b) having a first surface-area increasing portion (ramp or incline 2b, pg.6, paragraph 0055) to increase the surface-area thereof (as defined by its inclination elongates the surface area, relative to surface area of an exiting plane parallel to plate 6); the cover (2) having a side wall portion (walls under 2c,2c, drawing 6c shows front-edge view of frame 2) facing the side of electro-optical device (1, drawing 6a) and the side wall portion having a second surface-area increasing portion (2c, 2c drawing 6c) to increase the surface-area thereof (pg.7, paragraphs 0065-0066); the cooling air introducing portion (2a) including a baffle portion (5, drawing 7b,7c) to blow the cooling air (at least any of the distal opposite wings 5) to the side portion, the cooling air scattering prevention portion (5) includes the baffle portion (5); the cover (2) inherently being made of a material having a high heat

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conductivity; as recited in claim 15, the cooling air introducing portion (2a) having a cooling air guiding portion (wing 5-drawing 7c, pg.6, paragraphs 0061-0063) to allow the cooling air, which is blown to the electro-optical device (1) encased in the mounting case (2,6), to flow toward the image display region (1a,6a); as recited in claim 16, the cooling air introduction portion (2a) having a cooling air scattering prevention portion (wing 5, pg.6, paragraphs 0061) to allow the cooling air which is blown to the electro-optical device (1, pg.6, paragraphs 0062-0063) encased in the mounting case (2,6) to flow toward the cover main body (2,2a,2b); as recited in claim 17, A projection-type display apparatus (drawings 1-3) comprising: an electro-optical device (10) encased in a mounting case (2,9 or 6) according to claim 1 (pg.5, paragraph 0051); the light source (11); an optical system (100) to guide the projected light into the electro-optical device (10R,G,B); a projection optical system (22,20) projecting light emitted from the electro-optical device (10R,G,B); and a cooling air discharging portion (30, drawing 2) to blow out a cooling air to the electro-optical device (10,R,G,B) encased in the mounting case (2,6,9).

***Allowable Subject Matter***

23. Claims 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

24. Claims 10-12 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

25. The following is a statement of reasons for the indication of allowable subject matter: Claims 6 and 10-12 have allowable subject matter not suggested by the prior art of record: the edge of the window having a tapered shape; at least one of the first surface-area increasing portion and the second surface-area increasing portion including fins provided to protrude from the surface of the cover and dimples provided to form recesses on the surface of the cover.

### ***Conclusion***

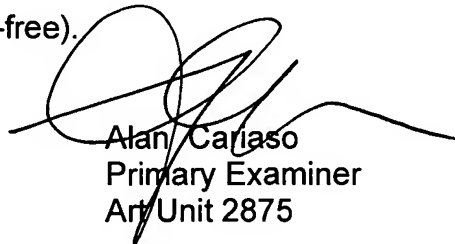
26. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. MANDAI (US 5,076,543) shows a mounting case including upper and lower case portions (1,5) encasing an LC panel (3,4), the casing including a cooling-air-introducing portion (11) that have air guiding portions which prevent air scattering (col.3, lines 37-42). SHIRAISHI et al (US 6,231,191) show individual LCD panels with casing (figs.14-17) that include fins, housed in projection system that includes a force air cool system. KONUMA et al (US 6,290,360) show baffles (123,124,125 in fig.11) which direct forced-air flow (112-116) to LCD panels (14,18) through inlets (91,92 fig.8).



Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alan Cariaso whose telephone number is (571) 272-2366. The examiner can normally be reached on 9-5:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (571) 272-2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Alan Cariaso  
Primary Examiner  
Art Unit 2875

September 23, 2005  
AC